

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA

OFFICIAL STATISTICS, COMMONWEALTH OF AUSTRALIA.

MANUFACTURING INDUSTRIES

1950-51.

NO. 29 RUBBER WORKS.

Prepared Under Instructions from

THE RIGHT HONORABLE THE TREASURER,

by

S.R. Carver

Acting Commonwealth Statistician

GENERAL: The Bulletins in the series for 1950-51 are listed on the back of the cover of this Bulletin and incorporate the same range of industries as the 1949-50 series with the following variations:-

- (a) The Metal and Machinery etc. Industries have been re grouped and are presented as - Basic Metal Industries (Bulletin No. 7) and Metal Fabricating Industries (Bulletin No. 8).
- (b) Single Bulletins are now being issued to cover:-
 - (i) The Clothing Industry, to include Hosiery and Knitted Goods (Bulletin No. 15).
 - (ii) The Jam, Fruit and Vegetable Canning, and the Pickles, Sauces and Condiments Industries (Bulletin No. 19).
- (c) Many of the Bulletins have been renumbered.

Where a number of Industries are combined in one Bulletin the introductory paragraph on Page 2 specifies the industries so included.

CLASSIFICATION OF FACTORIES: For purposes of industry classification, factories in Australia are classified according to the nature of their product. Where two or more distinct types of industrial activity are carried on in one establishment, a separate return is obtained, wherever practicable, for each activity in order to allow classification on this basis. In cases where this is not practicable, factories are classified according to predominant activity and these cases are encountered most frequently in the Metal Trades, (e.g. General Engineering firms also producing Agricultural Implements or Stoves etc.), and to a lesser degree in factories concerned with Skins, Leather, Clothing and Wood products.

Each of the summaries in the "Manufacturing Industries" series, relates as far as possible to the operations of factories classified to the industry specified. Sometimes articles normally produced in the industry covered by a particular Bulletin are also produced, as subsidiary production, in other industries, and, wherever possible, quantity tables have been extended to show details of production separately for the industry under review and the total in all industries.

BASIS OF THE STATISTICS: The scope of the factory statistics is fully explained in the annual Production Bulletin, Part I - Secondary Industries.

Briefly, a "factory" is taken to be a manufacturing establishment in which four or more persons are employed or in which power other than hand is used.

All persons employed in the manufacturing activities of the factory are counted as factory employees. The figures relating to employment, therefore, exclude all those engaged in selling and distribution, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods, and retailing storemen. The figures do include, however, proprietors who work in their own factories as well as "out-workers".

The value of output is the selling value at the factory of goods made or processed during the year, including by-products. In addition it includes the value of other work done, such as repair work, assembling and making-up for customers.

The value of production is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced and materials used in repairs to plant (but not depreciation charges). The value of production is the source from which such items as wages, interest, depreciation, profits, taxation, advertising and other sundry charges are met. As full details of costs of production are not collected, the amount of profit resulting from factory operations cannot be ascertained from the figures contained herein.

S. H. CARVER
ACTING COMMONWEALTH STATISTICIAN

MANUFACTURING INDUSTRIES : AUSTRALIA, 1950-51RUBBER WORKS

1. SUMMARY OF STATISTICS: The following table furnishes a summary for the years 1938-39, 1945-46 and 1948-49 to 1950-51 of the principal statistics of the factories engaged in the manufacture of Rubber Goods and in Tyre Retreading and Repair.

TABLE I : RUBBER WORKS AUSTRALIA.

Year	Number of Factories (1)	Persons Employed (a) (2)	Salaries and Wages Paid (b) (3)	Power, Fuel and Light, etc. Used (c) (4)	Value of Materials etc. Used (c) (5)	Value of Production (d) (6)
	No.	No.	£'000	£'000	£'000	£'000
1938-39	299	7,502	1,481	246	4,101	2,761
1945-46	308	8,699	2,622	372	8,126	4,182
1948-49	391	11,308	5,252	712	12,609	7,676
1949-50	404	12,382	6,285	857	15,275	9,370
1950-51	411	13,526	8,194	1,111	29,924	13,065

(a) Average whole year; includes Working Proprietors. (b) Excludes amounts for Working Proprietors. (c) Includes also containers, packing, etc., replacement tools and repairs to plant. (d) Value of Production equals column 7 less total columns 4 and 5.

In the following table, particulars of the industry are given for each State during the year 1950-51.

TABLE II : RUBBER WORKS : STATES, 1950-51.

Particulars	N.S.W.	VIC.	Q'LD.	S.A.	W.A.	TAS.
Number of Factories	152	122	57	41	23	16
Number Employed (a)-						
Males ..	5,017	3,985	773	610	124	112
Females ..	1,414	963	302	123	14	9
Total ..	6,431	4,948	1,155	733	138	121
Value of -	£	£	£	£	£	£
Salaries and Wages Paid (b) ..	4,034,260	3,114,991	539,958	361,600	64,614	58,309
Power, Fuel, Light, etc., Used ..	473,106	532,840	51,344	37,750	7,030	8,431
Materials, etc., used ..	13,748,112	13,731,436	1,472,568	711,787	140,853	118,955
Production (c) ..	4,859,441	6,507,574	217,664	614,282	148,039	117,966
Output ..	19,080,659	20,711,850	2,341,876	1,363,919	295,922	245,372
Land and Buildings	1,248,880	1,656,625	381,967	174,378	74,235	54,581
Plant and Machinery	1,178,784	1,638,310	405,836	175,413	33,997	26,159
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
H.P. of Engines ordinarily in use	38,910	32,900	5,489	2,230	364	22

(a) Average whole year; includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors. (c) See note (d) to Table 1.

2. AVERAGE SALARIES, WAGES PAID, OUTPUT, ETC. PER EMPLOYEE. Particulars of the average salaries and wages paid, together with the value of output and production per person engaged and the ratio of salaries and wages to the value of production are shown in the following table for the years 1938-39, 1945-46 and 1950-51 to 1950-51.

TABLE III : AVERAGE SALARIES AND WAGES PAID, OUTPUT, ETC. PER EMPLOYEE :

AUSTRALIA.

Year	Salaries and Wages per Employee (a)	Value of Output per Person Engaged (b)	Value of Production per Person Engaged (b)	Ratio of Salaries and Wages to Value of Production
	£.	£.	£.	%
1938-39	204	947	368	53.63
1945-46	317	1,658	481	64.13
1950-51	455	1,778	650	68.43
1950-51	510	2,060	757	66.00
1950-51	617	3,260	966	62.72

(a) Excludes Working Proprietors and amounts drawn by them. (b) Includes Working Proprietors.

3. MATERIALS USED AND ARTICLES PRODUCED: In the following table, details are given of the quantities and values of the principal materials used and articles produced in Rubber Factories in Australia for the year 1950-51. In some cases, the table includes particulars of small quantities used and produced in works not classified as "Rubber Works", as indicated in footnotes (a) and (d).

TABLE IV : PRINCIPAL MATERIALS USED AND RUBBER ARTICLES PRODUCED IN FACTORIES :

AUSTRALIA, 1950-51.

	Particulars	Unit of Quantity	Quantity	Value (£)
AUST.	<u>MATERIALS USED -</u>			
	Rubber - Crude	lb.	(a) 71,057,025	(a) 14,223,536
	Reclaimed	"	(a) 15,866,640	(a) 521,938
	Scrap purchased	"	(a) 24,899,751	(a) 126,098
	Latex	"	(a) 4,513,354	(a) 852,361
	Camelback	"	(a) 10,164,190	(a) 1,861,277
	Other	"	1,734,635	254,411
	Rubber, Synthetic	"	202,030	35,225
	Others	"	(b)	7,368,687
	<u>ARTICLES PRODUCED -</u>			
AUST.	Tires, Pneumatic - Car & Motor Cycle	No.	1,587,201	8,351,141
	Truck & Omnibus	"	557,408	9,292,428
	Tractor, Aero, etc.	"	117,205	2,017,970
	Bicycle	"	1,117,669	507,151
	Motorcaded and Recapped	"	(d) 1,112,633	(d) 4,271,584
	Solid	"	(c)	(c)
	Tires - Car and Motor Cycle	"	1,356,300	914,237
	Truck and Omnibus	"	496,135	803,794
	Tractor, Aero, etc.	"	107,491	231,155
	Bicycle	"	1,270,729	230,889
H.	Rubber Boots (all kinds)	pr.	712,937	109,856
	Shoes	"	3,341,372	1,521,237
	Heels and Soles	ft.	15,166,594	(d) 455,242
	Hose	lb.	1,779,054	1,497,335
	Floor Mats	sq. yds.	(c)	204,071
	Floor Covering	ft.	2,536,627	55,093
	Tubing	No.	178,352	105,299
	Hot Water Bottles	"	(c)	(c)
	Sheeting	sq. yds.	1,736,012	154,554
	Gloves	pr.	1,890,774	387,797
AUST.	Belting - Flat Transmission	ft.	(c)	(c)
	Conveyor and V. Belting	"	(c)	(c)
	Other Types	lb.	(c)	(c)
	Material for Rubber Soles	"	(c)	(c)
	Rage Rubber	doz.	2,283,399	597,565
	Rubber - Tennis	"	(3) 250,584	(1) 225,763
	Rubber - Tennis	"	(3) 250,584	(1) 225,763
	Rubber - Tennis	"	(3) 250,584	(1) 225,763
	Rubber - Tennis	"	(3) 250,584	(1) 225,763
	Rubber - Tennis	"	(3) 250,584	(1) 225,763

(a) Includes materials used in other works, details of which are not available for separate publication. (b) Value only collected. (c) Not available for publication. (d) Includes production in other works, details of which are not available for separate publication. (e) Value only available.

In the following two tables, details of Rubber used and Principal Rubber articles produced in all Factories in Australia are shown for the years 1938-39, 1945-46 and 1948-49 to 1950-51:-

TABLE V : RUBBER USED IN ALL FACTORIES : AUSTRALIA.

('000 lb.)

Year	Crude Rubber Used	Reclaimed Rubber Used	Scrap Rubber Purchased	Latex Used	Camelback Used	Other Rubber Used	Total
1938-39	34,781	4,832	310	1,145	3,101	157	44,226
1945-46	25,512	10,486	19,373	234	6,789	9,902	72,296
1948-49	57,074	12,050	15,591	1,831	7,714	3,564(a)	90,760
1949-50	65,519	15,002	15,856	2,337	8,956	2,150(a)	109,719
1950-51	71,057	15,667	24,900	4,513	10,464	1,239(a)	128,837

(a) Includes Synthetic Rubber.

TABLE VI : PRINCIPAL RUBBER ARTICLES PRODUCED IN FACTORIES : AUSTRALIA.

Commodity	Unit	1938-39	1945-46	1948-49	1949-50	1950-51
<u>Tyres, Pneumatic</u>						
Car, Motor Cycle, Truck, Omnibus, Tractor, Aero, etc.	No.	2,198,071	1,126,392	1,737,499	1,981,201	2,261,111
Bicycle	"		1,000,348	1,052,506	915,337	1,117,600
Retreaded (a)	"		727,757	786,261	893,533	1,112,400
<u>Tubes, Pneumatic</u>						
Car, Motor Cycle, Truck, Omnibus, Tractor, Aero, etc.	No.	1,833,702	1,815,167	1,551,869	1,703,416	1,959,000
Bicycle	"			1,113,360	1,046,315	1,270,100
Rubber Boots	pr.		264,636	388,958	534,689	712,300
Shoes	"	3,962,189	769,700	3,191,709	3,171,366	3,371,100
Hose	'000 ft.	11,515	13,100	15,366	17,499	18,400
Hot Water Bottles	No.	501,446	264,445	485,501	648,142	470,000
Sheeting	sq. yd.	169,688	238,596	161,830	68,899	
Gloves	pr.	354,878	210,936	1,024,813	1,391,929	1,734,000

(a) Includes Tyres Recapped. (b) Not available for publication.

(c) Production in 1951-52 amounted to 2,557,000 No. (subject to revision).

(d) Production in 1951-52 amounted to 903,000 No. (subject to revision).

4. **EMPLOYMENT:** The number of persons employed in Rubber Works, shown in Tables I, II, VIII and IX have been adjusted to represent the average employment over the whole year in those cases where short time was worked. In the following table the factories have been classified according to the average number employed during the actual period worked.

TABLE VII : FACTORIES CLASSIFIED ACCORDING TO PERSONS EMPLOYED : AUSTRALIA.

Number of Persons Employed in each factory	1930-31		1941-42		1948-49		1950-51		1950-51	
	Number of Factories	Number Employed	Number of Factories	Number Employed	Number of Factories	Number Employed	Number of Factories	Number Employed	Number of Factories	Number Employed
4	157	303	103	245	172	312	143	305	129	275
to 10	37	148	34	136	38	152	47	168	51	204
to 20	65	419	101	69	133	904	129	877	133	905
to 50	19	249	33	447	39	576	42	624	50	721
to 100	9	250	16	520	18	578	20	576	24	740
to 200	3	240	5	353	6	470	7	419	8	560
to 300			2	334	5	798	4	620	3	450
and over	9	5,900	4	502	3	805	3	625	4	890
			5	5,109	7	7,320	9	8,433	9	8,724
Totals:	299	7,509	308	8,725	391	11,865	404	12,667	411	13,538
Average Number Employed per factory	25		28		30		31		33	

Further details of employment in the industrial group - Rubber Works - are furnished in the next three tables. In Table VIII the number of persons employed are shown according to the nature of their employment in Rubber Works for the year 1950-51.

TABLE VIII : PERSONS EMPLOYED ACCORDING TO OCCUPATIONAL STATUS :

AUSTRALIA : 1950-51.

Occupational Status	Rubber Works -		
	Rubber Goods	Tyre Retreading and Repairing	Total
Working Proprietors	32	216	248
Managerial and Clerical Staff, including			
Salaries Managers and Working Directors	1,225	413	1,638
Engineers, Draftsmen and other Laboratory and Research Staff	290	-	290
Foremen and Overseers	481	138	619
Workers in Factory (Skilled and Unskilled)	8,969	1,296	10,265
Drivers (excl. Delivery only), Messengers and			
Persons working regularly at Home	457	9	466
Totals:	11,454	2,072	13,526

In Table IX the numbers of males and females employed are shown for the years 1938-39, 1949-50 and 1950-51 according to the nature of their employment but because of the changes in classification which operated from 1945-46, comparison between 1938-39 and later years shown is not wholly effective.

TABLE IX : PERSONS EMPLOYED CLASSIFIED ACCORDING TO OCCUPATIONAL STATUS :

AUSTRALIA

Occupational Status	Males			Females	
	1938-39	1949-50	1950-51	1938-39	1949-50
Working Proprietors	325	251	245	4	6
Managerial and Clerical Staff, including Salaried Managers and Working Directors		960	1,052		519
Chemists, Draftsmen and other Laboratory and Research Staff	6,614	238	272	2,266	16
Foremen and Overseers		519	596		24
Workers in Factory (Skilled and Unskilled)		7,409	8,016		2,023
Others (Carters and Messengers, etc).	86	395	440	7	22
Totals:	5,225	9,772	10,621	2,277	2,610

The number of persons employed in the Rubber Goods (including Tyres Made) and Tyre Retreading and Repairing Industries on or about the 15th June of the years 1939, 1946 and 1949 to 1951 are shown according to age and sex in Table X.

TABLE X : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE AND SEX :

AUSTRALIA.

(Excluding Working Proprietors)

June	Under 16 years	16 years	17 years	18 years	19 years	20 years	Total 16 to 20 years	21 years and over
<u>Males.</u>								
1939	107	(a)	(-)	(a)	(a)	(a)	1,008	3,856
1946	81	99	142	161	142	140	684	7,141
1949	63	116	116	164	173	206	775	8,645
1950	50	76	130	131	155	163	655	9,444
1951(b)	60	83	128	124	139	146	620	10,020
<u>Females</u>								
1939	85	(a)	(a)	(a)	(a)	(a)	935	1,214
1946	20	37	60	67	59	45	218	1,357
1949	36	58	69	81	108	92	408	2,200
1950	22	61	69	69	67	67	333	2,411
1951(b)	41	62	60	76	61	75	334	2,611

(a) Details not collected. (b) Last pay-day of month.

7. VALUE OF STOCKS OF RUBBER, PLANT AND MACHINERY. Particulars of the book values of rubber stocks and plant used in rubber plantations at the 30th June for the years 1938-39, 1945-46 and 1948-49 to 1950-51 are shown in the next table. Details of the values of additions and replacements made and depreciation allowed during the same period are also shown. It should be noted that the amounts shown are those recorded by factories which were operating during each year and that changes in their number, as well as other factors, affect comparison from year to year.

TABLE XIII : VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY, ETC. 1

AUSTRALIA.

(£)

Year Ended June	Book Values as at 30th June (a)		Additions & Replacements made during year		Depreciation allowed during year	
	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery
1938-39	1,676,003	1,367,859	56,332	163,508	28,500	162,500
1945-46	1,855,004	1,218,861	97,675	332,814	47,337	285,000
1948-49	2,475,764	2,213,630	203,990	716,000	56,084	433,000
1950-51	3,038,590	2,753,822	284,234	975,790	48,024	592,000
1951	3,191,566	3,455,829	649,550	1,366,389	22,766	721,000

(a) Includes estimated value of rented premises and machinery.

8. EXTERNAL TRADE : The next two tables furnish particulars of the imports and exports of Rubber and Rubber Manufactures for the years 1938-39, 1945-46 and 1948-49 to 1950-51:-

TABLE XIV : RUBBER AND RUBBER MANUFACTURES (EXCEPT APPAREL) : AUSTRALIA.

IMPORTS

Year	Crude Rubber		Rubber Waste		Tyres, Pneumatic		Tyres Other than Pneumatic	All Other Rubber Goods
	Quantity	Value	Quantity	Value	Covers	Tubes		
	cwt.	£..f.o.b.	cwt.	£..f.o.b.	£..f.o.b.	£..f.o.b.	£..f.o.b.	£..f.o.b.
1938-39	296,795	1,282,787	20,864	39,925	26,923	5,103	3,516	403,000
1945-46	198,979	2,107,908	2,016	14,502	178,625	9,706	3,471	65,000
1948-49	504,328	3,144,391	37,990	187,044	1,574,753	214,116	10,171	1,16,000
1949-50	576,958	4,261,218	29,789	170,177	4,620,319	584,949	21,655	1,02,000
1950-51	927,336	22,563,121	14,983	198,293	4,406,581	645,845	19,868	1,87,000

EXPORTS.

Year	Crude Rubber		Hose	Tyres and Tubes	Belting	All Other Rubber Goods
	Quantity	Value				
	cwt.	£..f.o.b.	£..f.o.b.	£..f.o.b.	£..f.o.b.	£..f.o.b.
1938-39	279	1,744	11,306	10,232	(c)	67,721
1945-46	8,327	7,995	6,247	483,541	13,952	16,324
1948-49	1,927	2,783	26,523	38,719	29,113	40,051
1949-50	2,072	5,556	19,783	102,022	11,545	70,116
1950-51	1,538	4,077	24,688	142,403	61,000	94,111

(a) Included with "All Other Rubber Goods".

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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS,

CANBERRA, A.C.T.

20TH NOVEMBER, 1952.

5. **POWER EQUIPMENT** : Quantities of the power equipment of the factories included in this group are given in the next table. The details given include the rated horse-power of engines ordinarily in use, together with those in reserve or idle.

TABLE XI : TYPES AND RATED HORSE-POWER OF ENGINES : AUSTRALIA.

Class of Engine		Rated Horse-Power of Engines					
		Ordinarily in Use			In Reserve or Idle		
		1938-39	1949-50	1950-51	1938-39	1949-50	1950-51
Reciprocating ..	..	981	1,353	1,506	95	143	127
Turbine ..	..	78	92	606	-	-	4
Internal Combustion - Gas ..	..	6	-	-	2	-	-
Petrol or Other Light Oils ..	..	16	69	224	-	98	77
Heavy Oils ..	..	186	38	331	-	213	290
..	..	3	-	-	-	-	-
Total Prime Movers:		1,270	1,552	2,667	97	454	498
Engines driven by electricity - Purchased ..	..	40,483	77,008	83,450	2,654	10,618	12,767
Own Generation ..	..	-	-	-	-	-	-
Total Electricity:		40,483	77,008	83,450	2,654	10,618	12,767
TOTAL POWER USED:		41,753	78,560	86,117	2,751	11,072	13,265

6. **POWER, FUEL AND LIGHT, ETC. USED** : Details of the quantities and values of the various items of power, fuel and light used in Rubber Works are shown in the following tables:-

TABLE XII : POWER, FUEL AND LIGHT, ETC. USED : AUSTRALIA.

Particulars	Unit of Quantity	Quantity			Value (£)		
		1938-39	1949-50	1950-51	1938-39	1949-50	1950-51
Fuel and Light	ton	44,228	36,441	46,767	62,366	108,519	169,405
Oil - Black ..	"	1,058	29,604	30,092	1,811	49,362	55,830
Brown ..	"	(a)	-	-	(a)	-	-
Brown Coal Briquettes	"	2,179	4,466	4,053	4,194	13,690	15,200
..	"	6,124	13,752	14,467	4,998	24,306	27,868
..	"	138,684	3,726,986	4,232,773	3,552	185,429	249,734
..	gal.	(b)	555,065	335,025	(c)	23,192	14,512
..	"	(d)	(d)	(d)	139,780	362,967	481,953
..	"	(c)	(d)	(d)	4,200	9,181	8,357
..	"	(d)	(d)	(d)	64	823	1,762
..	"	(d)	(d)	(d)	25,414	59,006	85,850
TOTAL:		(d)	(d)	(d)	246,419	856,510	1,110,501

(a) Include with Brown Coal. (b) Not available. (c) Included with Other (Charcoal etc.). (d) Value only available.